# Sulfamide

| | |
|---|---|
| **Other names:** | Sulfamamide |
| | Sulfonyl diamide |
| | Sulfuric diamide |
| | Sulfuryl amide |
| | Sulfuryl diamide |
| | sulphuric diamide |
| **Inchi:** | InChI=1S/H4N2O2S/c1-5(2,3)4/h(H4,1,2,3,4) |
| **InchiKey:** | NVBFHJWHLNUMCV-UHFFFAOYSA-N |
| **Formula:** | H4N2O2S |
| **SMILES:** | NS(N)(=O)=O |
| **Mol. weight [g/mol]:** | 96.11 |
| **CAS:** | 7803-58-9 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -386.52 | kJ/mol | Joback Method |
| hf | -429.10 | kJ/mol | Joback Method |
| hfus | 17.53 | kJ/mol | Joback Method |
| hvap | 55.51 | kJ/mol | Joback Method |
| log10ws | 0.50 | | Crippen Method |
| logp | -1.851 | | Crippen Method |
| mcvol | 58.910 | ml/mol | McGowan Method |
| pc | 11103.70 | kPa | Joback Method |
| tb | 392.24 | K | Joback Method |
| tc | 592.47 | K | Joback Method |
| tf | 294.84 | K | Joback Method |
| vc | 0.220 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 109.57 | J/mol×K | 392.24 | Joback Method |
| cpg | 114.15 | J/mol×K | 425.61 | Joback Method |
| cpg | 118.57 | J/mol×K | 458.98 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 122.85 | J/mol×K | 492.35 | Joback Method |
| cpg | 126.96 | J/mol×K | 525.73 | Joback Method |
| cpg | 130.89 | J/mol×K | 559.10 | Joback Method |
| cpg | 134.63 | J/mol×K | 592.47 | Joback Method |
| hsubt | 101.50 ± 1.00 | kJ/mol | 352.50 | NIST Webbook |

# Sources

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C7803589&Units=SI

**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l

**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

**Joback Method:** https://en.wikipedia.org/wiki/Joback_method

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

# Legend

**cpg:** Ideal gas heat capacity
**gf:** Standard Gibbs free energy of formation
**hf:** Enthalpy of formation at standard conditions
**hfus:** Enthalpy of fusion at standard conditions
**hsubt:** Enthalpy of sublimation at a given temperature
**hvap:** Enthalpy of vaporization at standard conditions
**log10ws:** Log10 of Water solubility in mol/l
**logp:** Octanol/Water partition coefficient
**mcvol:** McGowan's characteristic volume
**pc:** Critical Pressure
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume

Latest version available from:
https://www.chemeo.com/cid/30-774-9/Sulfamide.pdf
Generated by Cheméo on 2024-04-26 03:11:17.499733567 +0000 UTC m=+16390326.420310879.
Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.